

WHAT IS CLAIMED IS:

*Sub B1*

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1. A magneto-optical recording medium comprising:  
a first magnetic layer which is an in-plane magnetization film at room temperature and raised temperatures, and is changed into a perpendicular magnetization film at medium temperatures; and  
a second magnetic layer which is composed of a perpendicular magnetization film.
2. A magneto-optical recording medium according to Claim 1, wherein each of the first and second magnetic layer consists of a rare-earth and iron group amorphous alloy.
3. A magneto-optical recording medium according to Claim 2, wherein the first magnetic layer has a composition in which rare-earth element sublattice magnetization is predominant.
4. A magneto-optical recording medium according to Claim 1, further comprising a third magnetic layer interposed between the first and second magnetic layers, and having Curie temperature lower than those of the first and second magnetic layers.
5. A magneto-optical recording medium according to Claim

*Sub Cc*  
~~Claim 4, wherein the third magnetic layer is composed of a perpendicular magnetization film.~~

*Sub B2*  
5 6. A magneto-optical recording medium according to Claim 4, wherein the third magnetic layer is an in-plane magnetization film and changes to a perpendicular magnetization film at raised temperatures.

10 7. A method of reproducing, with a laser beam, information recorded on a magneto-optical recording medium comprising a first magnetic layer which is an in-plane magnetization film at room temperature and high temperatures, and changed into a perpendicular magnetization film at intermediate temperatures, and a 15 second magnetic layer which is composed of a perpendicular magnetization film, said method comprising the steps of:

projecting a laser beam onto the medium from the side of the first magnetic layer;

changing high-temperature and low-temperature

20 regions within a portion of the first magnetic layer which is irradiated with the laser beam, into an in-plane magnetization film, and a medium-temperature region into a perpendicular magnetization film;

25 transferring information recorded in the second magnetic layer to the first magnetic layer by exchange

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coupling perpendicular magnetization of the first magnetic layer and magnetization of the second magnetic layer; and  
reproducing the recorded information based on the magneto-optic effect of the light reflected from the  
medium.

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